

Title (en)

METHOD AND APPARATUS FOR HIGH SPEED DETERMINATION OF Jth ROOTS AND RECIPROCAL OF Jth ROOTS

Title (de)

HOCHGESCHWINDIGKEITSVERFAHREN UND -GERÄT ZUR BESTIMMUNG VON J-TEN WURZELN UND REZIPROKWERTEN VON J-TEN WURZELN

Title (fr)

PROCEDE ET SYSTEME DE DETERMINATION A HAUTE VITESSE DE RACINES Jième ET DES INVERSES DES RACINES Jième

Publication

EP 0461214 B1 19970806 (EN)

Application

EP 90917368 A 19901113

Priority

- US 9006532 W 19901113
- US 45904189 A 19891229

Abstract (en)

[origin: WO9110187A1] A method and apparatus is disclosed that utilizes "Lindsley's Law", a polynomial convergence algorithm, suitable even for high convergence rates, to implement more efficient reciprocal j<th> root, and hence, j<th> root itself, computations of desired inputs. The invention emphasizes multiplication (114, 116, 118, 120), instead of addition, as the iterative operator, thereby reducing error at a rate relative to a power of a selected convergence rate.

IPC 1-7

G06F 7/38

IPC 8 full level

G06F 7/38 (2006.01); **G06F 7/552** (2006.01)

CPC (source: EP KR)

G06F 7/38 (2013.01 - KR); **G06F 7/5525** (2013.01 - EP); **G06F 2207/5521** (2013.01 - EP)

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

WO 9110187 A1 19910711; CA 2047731 A1 19910630; DE 69031215 D1 19970911; DE 69031215 T2 19980219; EP 0461214 A1 19911218; EP 0461214 A4 19930901; EP 0461214 B1 19970806; JP H04504773 A 19920820; KR 920701900 A 19920812; KR 940008609 B1 19940924

DOCDB simple family (application)

US 9006532 W 19901113; CA 2047731 A 19901113; DE 69031215 T 19901113; EP 90917368 A 19901113; JP 50054390 A 19901113; KR 910701001 A 19910827